DOCUMENT RESUME

ED 184 733 RC 011 584

AUTHOR Lyson, Thomas A.
TITLE Occupational Situs and the Agricultural Labor Market.
SPONS AGENCY Department of Agriculture, Washington, D.C.; South Carolina Agricultural Experiment Station, Clemson.
PUB DATE 22 Aug 79
NOTE 44p.; Publication contributes to USDA Cooperative State Research Service Southern Regional Project S-114, "Defining and Achieving Life Goals: A Process of Human Resource Development".

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Agribusiness; Agricultural Education; *Agricultural Occupations; Agricultural Production; Black Colleges; Black Students; *Career Choice; *Classification; *College Students; Education Work Relationship; Higher Education; Labor Force; Land Grant Universities; Males; Off Farm Agricultural Occupations; *Racial Differences; Rural Areas; *Socioeconomic Background; Socioeconomic Status; White Students
IDENTIFIERS *United States (South)

ABSTRACT

Agricultural situs can be applied to the analysis, description, and examination of career lines, occupational families, and opportunity structures in the agricultural sector. A proposed situs classification of three categories, or parallel agricultural career ladders was examined in terms of production agriculture, agribusiness, and agricultural education and research. Results of a survey of 1,362 Black and White male students enrolled in agricultural colleges of Southern land grant universities provided preliminary understanding of background factors and social conditions affecting agricultural situs placement. Allocation of agricultural job roles was related to social background and experiences, and situs expectations appeared to be partially governed by available agricultural curricula. White males in schools chartered in 1862 aimed for production agriculture and agribusiness occupations, whereas Black students in the 1890 schools aimed for agricultural research and education and were disproportionately drawn from rural and low socio-economic backgrounds, suggesting a set of agricultural occupations of critical importance to career aspirations of Blacks in general and particularly lower status Blacks. It was suggested that situs classifications merit examination by rural sociologists. (SB)

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ED184733

Occupational Situs and the Agricultural Labor Market*

Thomas A. Lyson
Department of Agricultural Economics
and Rural Sociology
Clemson University
Clemson, S.C. 29631

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* Support for this research was provided in part from the S.C. Agricultural Experiment Station in conjunction with USDA/SEA Southern Regional Research Project S-114.

RC 011584

Occupational Situs and the Agricultural Labor Market

The aim of this paper is twofold. First, the concept of situs (a non-hierarchical differentiation of social structures) is introduced as a hitherto neglected, but potentially useful analytical variable in identifying and examining the allocation and distribution of occupational roles in the agricultural sector. A three category situs classification (production agriculture; agribusiness; and agricultural education/research) based on occupational groupings delineated by Byrum (1966) and elaborated by Hoover (1969) is proposed. Second, using data collected from a sample of black and white college students enrolled in agricultural programs at Southern Land Grant Universities, a set of background factors and social conditions that affect situs placement in the agricultural sector will be identified. To begin, however, a brief overview of the recent reemergence of the situs concept in American sociology and a clarification of the concept seems in order.

Researchers concerned with the American occupational structure, in general, and the patterning of career ambition in particular, have relied very heavily on the concept of occupational status or prestige as an indicant of occupational differentiation and attainment. Growing out of the theoretical underpinnings of Parsons (1940) and Davis and Moore (1945) and empirically articulated in the works of Blau and Duncan (1967) and a host of status attainment researchers (see for example, Haller and Portes, 1973; Hauser and Featherman, 1977; Treiman

and Terrell, 1975; among many others) this line of research has largely ignored the existence and importance of any situs dimension in social stratification.

In their efforts to understand the nature of occupational placement and career development, status attainment researchers implicitly assume a homogeneous, monolithic opportunity structure in which individual characteristics are identified and rewarded according to their social value (Horan, 1978). In such a scheme, situs categories, to the extent that they are recognized at all, are conceived as "categories of work which are differentiated in some way but are not invidiously compared" (Morris and Murphy, 1959). In other words, the underlying process of status attainment is assumed to operate uniformly across all sectors of the economy. A non-hierarchical differentiation of the occupational structure, while perhaps intrinsically interesting and useful at a descriptive level, is seen as unimportant and of no consequence in the structuring of occupational ambition.

Beck, Horan and Tolbert (1978), Bibb and Form (1975), Horan (1978) and others have begun to question the usefulness of the functionalist/status attainment approach for understanding the distribution and allocation of social inequalities. Often working out of a sectoral model of occupational and economic differentiation (e.g., theories of dual economy, dual labor markets, and labor force segmentation), these researchers have introduced a type of situs analysis, couched in terms of industrial labor market sectors, into the stratification and

mobility research arena. A sectoral model of economic organization assumes that the market structure of industrial societies is not homogeneous with respect to individual opportunity and reward structures, but rather is composed of two (or more) employment sectors, each with its own distinct (internal) normative organization. Situses, then, to the extent that they are represented by, or indicative of, industries or industrial sectors, can be used to clarify the nature of social stratification and mobility in society.[1]

Empirical evidence is accumulating to show that situs/industrial placement is significantly related to a wide range of socioeconomic benefits, especially individual earnings (Beck, Horan, and Tolbert, 1978; Gordon, 1972; Piore, 1979). Further available evidence also suggests that systematic, non-random factors operate to place an individual in a given situs or industry (Hauser and Featherman, 1977; Doeringer & Piore, 1971).

Although situs can be seen as closely associated with, and often analogous to, the industrial classification system employed by the U. S. Census, we believe that the concept can also be fruitfully applied to the analysis, description, and examination of career lines, occupational families, and opportunity structures in the agricultural sector. More specifically, situs, as it relates to a type of non-hierarchical differentiation of occupations in the agricultural sector, can be operationalized as two or more internally consistent, mutually exclusive, though not necessarily equivalent, occupational families (Villemez and Silver, 1977). For our purposes, we propose a three category

situs classification: 1) production agriculture; 2) agribusiness; 3) agricultural education and research. Each occupational family is composed of a series of hierarchically ranked status positions (Hatt, 1950). Taken as a whole then, the classification scheme can be viewed as three distinct, but parallel agricultural status ladders.

Agricultural Situses

In constructing agricultural situses, we followed the guidelines established by Benoit-Smullyman (1944), operationalized for use on the societal level by Morris and Murphy (1959) and amended by Villemez and Silver (1977). According to Beniot-Smullyman (1944:154):

> ...situs distinctions exist whenever a socially accepted classification distinguishes between groups is considered a socially relevant criterion in making distinctions between individuals.

Morris and Murphy (1959:236) operationalized the Beniot-Smullyman concept along work function lines as follows:

> ...Assignment to a given situs (is) based on the nature of the task - what the person in the occupation does, rather than the kind of institution the individual works for, or his associates.

The Morris and Murphy procedure has been criticized by Villemez and Silver (1977:32) on the grounds that:

> ...situses should have "socially relevant" group membership as their defining criterion, and it remains to be shown that functional categories even meet this criterion.

We believe, however, (at least intuitively) that when applied and anchored specifically to one industrial or economic subsystem of society (e.g., agriculture, education, health/medicine, etc.) Morris and Murphy's situs assignment along task lines is

more apt to result in "socially relevant" group membership. For example, the life-styles, routines of work, and opportunity and reward structures associated with on-farm (production agriculture) employment are certainly different and distinct from those that characterize work roles in the off-farm agribusiness sector. We can also note that intra-industry situses, to the extent that they reflect a set of structural/functional positions within a social organization of production, are very much akin to Marxian class categories (Wright and Ferrone, 1977).

Our sorting of agricultural occupations into three situs categories grows out of the classificatory scheme proposed by Byrum (1966) and amended and extended by Hoover (1969). Byrum classified agricultural occupations into three types: agricultural production; agricultural business, industry, and services; and professions. Hoover took two of Byrum's occupational types and made somewhat finer distinctions. For example, he delineated three separate production agriculture families: self-employed in production agriculture; paid employee in production agriculture; and farm custom work. For agricultural business, industry and services he noted seven different occupational groups: agricultural production services; agricultural supplies; agricultural mechanics; agricultural products; ornamental horticulture; agricultural resources; and forestry. However, both Byrum and Hoover delineated only one group of agricultural professions.

There probably are numerous other ways to differentiate and

group agricultural occupations. For the purposes of this paper and keeping to the conceptualization of situs as parallel status ladders, Byrum's three category scheme has been slightly modified (see figure 1). We eliminated Byrum's "professional" category and introduced an "education-research" situs in its place. By doing so we not only specified a more homogeneous (vis-a-vis work tasks) group of agricultural occupations, but latently also created a range of occupational statuses more comparable to those found in the production agriculture and agribusiness situs. A brief description of each agricultural situs to be used in this paper, and a few examples of the types of occupations found in each, are noted below.

Production Agriculture: Generally occupations concerned with "on farm" production of food and fiber, the growing of plants, and the raising of animals (Hoover, 1969). More specifically all occupations primarily concerned with propagating, growing, caring for, and gathering plant and animal products. Also included are logging timber tracts, catching, hunting and trapping animals (USDOL, 1977). Some occupations in the production agriculture situs include migrant farmworker, sharecropper, tenent farmer, general farmer, farm manager, and farm foreman.

Agribusiness: (i.e., Agricultural Business, Industry, and Service): Generally occupations concerned with providing support services (other than education and research) to production agriculture workers. More specifically, all agricultural occupations for which some knowledge and skills in one or more of the following areas are needed: plant and soil science, animal science, agricultural mechanics, and agricultural bus-

iness (Hoover, 1969). Some occupations in the agricultural business, industry and service situs include veterinarian, commodities broker, livestock inspector, egg grader, and meat wrapper.

Agricultural Education and Research: Generally, occupations concerned with formal instruction or training or with the acquisition of knowledge as an end in itself (Morris and Murphy, 1959). More specifically, all occupations concerned with informing and advising farmers and farm workers in the techniques of agricultural production and all occupations concerned with the discovery, development and application of agriculturally related concepts and ideas (USDOL, 1977). Some occupations in the educational and research situs include soil scientist, agricultural economist, agricultural engineer, plant pathologist, vocational-agricultural teacher, county agricultural agent, assistant county agricultural agent, lab technician.

It is, of course, obvious that situs, as operationalized here, differs somewhat from the U.S. Census based industrial sector analysis noted earlier. For example, although the census assigns most production agriculture related occupations to the agricultural industry, many agribusiness and education/research situs positions are scattered across census defined industrial sectors.[2] Nevertheless, we would expect that the agricultural situses identified here, regardless of census defined industrial affiliation, represent theoretically interesting and empirically important career lines and opportunity structures and as such merit increased attention and examination by rural sociologists.

Again, we should note that the situs structure we have identified, while hopefully delimiting sets of socially relevant and significant agricultural occupations, by no means represents the only way to define an agricultural situs structure. We have created, in a sense, "study-specific" situses (Villimez and Silver, 1977). Given a different research topic or study population a different, more a propos, set of agricultural situses could be operationalized.[3]

Situs Placement

Given the tremendous growth of America's off-farm agricultural work force and the increased differentiation and specialization of all agricultural work roles in our society, it is not surprising that rural sociologists have recently begun to undertake a detailed examination of the agricultural related occupational structure. Cosby and Frank (1978), for example, have developed a prestige scale for agricultural occupations, Dunkelberger and Hayes (1979) have examined the occupational choice process of college students enrolled in agricultural curriculums, and Lyson (1979a and 1979b) has examined the backgrounds of men and women aiming for careers in production agriculture. An earlier study (Taylor and Leagans, 1970) concerned itself with New York agribusiness. Taken together, these researches and other works now in progress[4] are providing both a clearer and more detailed understanding of the social and demographic characteristics of America's agricultural work force and are also helping to specify certain of the dynamics of the agricultural labor market as they per-

tain to occupational recruitment, internal opportunity and reward structures, and the like.

The remainder of this paper will be devoted to identifying some social factors and background conditions related to situs recruitment among a biracial sample of agricultural students enrolled in Southern Land Grand Universities. Because of the conceptual similarity between situs and status (both refer to a type of structural differentiation of the social order), we might expect that variables used in studying status attainment may also be used to study the allocation of occupational situses. In particular then, we shall concern ourselves with the effects of race, social class origin, local residence place, prior educational and work experiences in agriculture, and academic major on situs placement in the agricultural sector.

The lack of an empirically grounded conceptual framework in this area precludes the testing of any formalized "situs placement" model. However, to the extent that we can begin to delineate a set of variables and conditions related to the sorting of individuals into specific situs tracks, we have taken the first step toward explaining the origin and nature of social differentiation in the agricultural labor market.

RESEARCH PROCEDURES

Study Population

Data for this study are from Southern Regional Research Project S-114 (Defining and Achieving Life Goals: A Process of Human Resource Development). One part of this project,

subtitled "A Regional Study of Higher Education in Agriculture and Home Economics in the South," deals with the determination of background characteristics and career-planning strategies of students attending Southern colleges of agriculture and home economics. Data for this part of the regional project were collected in the spring of 1977 from agricultural and home economics students enrolled in all 1862 and 1890 land grand institutions in 14 Southern states.[5] In addition, the College of Agriculture at Texas Tech University was included in the sample because of its relatively large enrollment (N=1542) as was Tuskegee Institute (Alabama) because of its well-established roles as a leader in agricultural education in the nation. Further, in four states (Florida, South Carolina, North Carolina, and Texas) either because of low home economics enrollment or lack of a home economics program, schools other than the land grant institution were sampled. The land grant schools in these four states were replaced by the University of North Carolina at Greensboro, Winthrop College (South Carolina), Florida State University, and Texas Tech University.

The sampling frame was determined by asking the Deans of Agriculture and Home Economics at each school to provide the S-114 researchers with lists of names, addresses, and academic ranks of currently enrolled students. These lists were then edited to delete students classified as either special students or graduate students. From these lists of fifteen percent random sample for both the colleges of agriculture and

home economics at the 1862 land grant universities (or their substitutes for certain home economics programs) and Texas Tech University was drawn. Because of their lower average enrollments and anticipated lower overall return rates, a total sample of 1890 students and students at Tuskeegee Institute was taken to insure an adequate population size.

In most cases, questionnaires were mailed to respondents. However, at some of the smaller schools data collection was coordinated through a campus representative. Two mail follow-ups and one direct contact were used to improve response rates. The overall response rate for students in colleges of agriculture was 68.8 percent (N=3387) and for students in colleges of home economics it was 66.3 percent (N=2098). In this paper, we will concern ourselves only with white males enrolled in 1862 colleges of agriculture and Texas Tech University (N=1067) and black males enrolled in 1890 colleges of agriculture and Tuskeegee Institute (N=295) who expect to enter agriculturally related jobs after graduation.

Study Variables

Dependent Variable

Agricultural situs expectation, the main problematic variable, will be trichotomized into a decision to pursue a career in either 1) production agriculture; 2) agribusiness (i.e., occupations in agricultural service, business or industry); or 3) agricultural education and research. Situs expectations were determined from responses to the following question: "Sometimes we are not always able to do what we want most. What kind of job do you really expect to have most of your life?" To achieve the greatest potential situs specification, these responses were initially coded (without regard to status) into

one of the seven occupational groupings delineated by Hoover (1969). For the present inquiry, Hoover's seven-fold classification is modified and reduced into the trichotomy noted above. Situs assignment of ambiguous occupations, especially those originally coded under Hoover's professional category, is based on the description of occupational duties listed in the Dictionary of Occupational Titles (USDOL: 1977). Those respondents choosing non-agricultural related occupations are eliminated from consideration.

Independent Variables

Local residence place is coded into six categories ranging from "in the country and on a farm" to "in a large metropolitan city (over 500,000 in population)." Father's educational level is coded into eight categories ranging from "less than 9th grade" to "graduate work after college." Categories for family income range from 1) "less than $5,000 a year" to 9) "over $100,000 a year." To index prior agricultural related educational experiences the respondents were asked whether they had: 1) taken an agriculture course in high school; 2) participated in 4-H; and 3) participated in FFA. Responses were coded "1" for participation and "0" for no participation. A summated scale score is assigned each individual. Finally, prior agricultural work experiences is coded into four categories: 1) work on a farm and also work in another (non-farm) agricultural job; 2) farm work only; 3) non-farm agricultural work only; 4) no prior agricultural work experiences.

A Profile of Agricultural Situs Expectations

Tables 1-3 provide a brief descriptive overview of the situs orientations of our study population. Table 1 shows that

the predominant situs orientations for white men enrolled in 1862 land grant universities are production agriculture and agribusiness. For blacks in the agricultural programs of 1890 institutions, on the other hand, careers related to agricultural education/research are more attractive than either production agriculture or agribusiness occupations. Reasons for racial differences in the patterning of situs expectations are not altogether clear, but may be related to intra-situs recruitment procedures and prerequisites, longstanding occupational orientations, or simply unequal access to curriculums that lead to, and prepare students for, jobs in a given situs.

Looking at patterns of occupational ambition within situs, Table 2 reveals that the majority of blacks and a substantial number of whites with production agriculture expectations are oriented toward careers as general farmers. Further, similar proportions of whites and blacks expect to become farm managers, forest managers, dairy farmers, and livestock farmers. The greatest difference in specific job orientations between whites and blacks in this situs is the large proportion of white men expecting to become nursery/greenhouse operators. Over 11 percent of the whites in our sample compared to only 4.5 percent of the blacks have ambitions toward nursery/greenhouse work.

Overall, however, we must remember that relative to blacks over 2½ times more whites expect to pursue production agriculture careers, especially as self-employed farmers. It is not surprising, given the existing land tenure arrangements in the South and the prerequisites of good land and adequate capital to begin farming (Lyson, 1979) that white men are more likely,

not only to become farmers, but also to be in a position where farming represents a viable career option.

Among both black and white men expecting to enter the agribusiness sector, substantial numbers plan to become veterinarians (see Ohlendorf, et. al. 1979, for a detailed examination of this group). Additionally, it is worth noting that white men with occupational expectations in this situs pursue a wider and more varied set of occupational goals than blacks. Seven occupations account for over 75 percent of all occupational choices for blacks, while 13 occupations account for about 78 percent of all occupaitonal choices for whites. Whether blacks are "discouraged" from pursuing a wider range of agribusiness occupations or whether they are simply unaware of these options is a question for future research.

The greatest disparity between blacks and whites occurs in the expectation patterns related to agricultural education/research careers. Over half of the black sample plans to enter this situs compared to only about one quarter of our white sample. Significant intra-situs differences are also apparent. For example, over 28 percent of the blacks expect to enter vocational agriculture type jobs compared to only 16.6 percent of the whites. Almost 22 percent of the blacks plan to enter the extension service, either as county agents or extension specialists, while only 12.3 percent of the whites report these plans. Finally, about 25 percent of the blacks expect to enter careers as soil/water conservationists or soil scientists compared to less than six percent of the whites. It is interest-

ing to note, however, that, although whites are less inclined to pursue careers in the education/research situs, the nature and range of their specific occupational choices is both broader and more varied than that for blacks.

We can shed further light on the nature of occupational recruitment in the agricultural sector, however, by examining the relationship between situs expectations and academic major. Table 3 shows that each situs is characterized by its own particular mix of subject matter concentrations. For example, whites planning to enter production agriculture generally pursue degrees in animal science, agricultural economics and agronomy. Blacks oriented toward production agriculture also pursue degrees in the above subjects as well as vocational agriculture. Animal science, pre-veterinary science, and vocational agriculture typify the majors of blacks aiming for careers in the agribusiness sector, while agricultural economics, pre-veterinary science and animal science characterize the academic pursuits of whites with agribusiness interests. Finally, whites with occupational expectations in the agricultural research/education situs are found primarily in agronomy vocational agriculture and forestry. Blacks with similar situs expectations are found in vocational agriculture, agronomy and agricultural economics.

Perhaps the most striking feature of Table 3 is the broad range of academic majors associated with each situs for whites. We suspect that the broader and more varied curriculums in the 1862 schools account in large part for the differences in magnitude and kind found in Table 3. A closer examination of the extent to which the absence or presence of specific agricultural

curriculums influence and track students either overtly or covertly into specific situses (and occupations) might lead to a better understanding of the agricultural recruitment process.

We can expand our inquiry into the allocation and distribution of situs positions in the agricultural labor market by examining some of the background factors and social conditions (that may be) associated with occupational choice among our study populations. Building on the findings of a large number of status attainment researchers and others concerned with the process of career development we believe that the structuring of occupational opportunities and the allocation of work roles in the agricultural sector is related, to some extent at least, to an individual's social origins, prior experiences, and personal attributes.

Below, using race/school type as a basis of comparison, we describe the effects of three structural variables (residence place, father's education, and family income) and two variables related to prior agricultural experiences (agricultural work experiences and high school agricultural-related educational experiences) on occupational situs expectations. Because we view our empirical analysis as more exploratory and descriptive rather than explanatory and predictive, we report only contingency table percentages and inter-situs correlation coefficients. An analytically more rigorous examination of situs placement must wait until a set of theoretically interesting and empircally meaningful variables have been identified.

Residence Background

The findings reported in Table 4A show that the white men in our study population come from somewhat more urban backgrounds than their black counterparts. Almost half of the whites were reared in cities compared to only about 40 percent of the blacks.

Looking at patterns of situs choice within race categories reveals that whites expecting to enter production agriculture are more likely to come from farm backgrounds than their peers aiming for careers in the other agricultural situses. However, inter-situs correlation (Table 5A) shows that the residence backgrounds of whites aiming for careers in agribusiness and agricultural education/research are very similar (Gamma= -.051).

A different pattern of relationships obtains for blacks. Black men expecting to enter the agricultural research/teaching situs are considerably more likely to come from rural areas than their counterparts with other situs expectations. In fact, fewer than 25 percent of the black men in our sample with agricultural research/education occupational expectations come from urban environs, whereas close to 60 percent of the blacks expecting to enter production agriculture or agribusiness fields come from urban backgrounds. The attractiveness of education/research positions to rural blacks suggests that, in the South at least, residence background defines a set of social conditions that affect access to specific career lines. Given the rather large inter-situs correlation coeffieients for blacks, a more in-depth investigation into the relationship between residence and situs tracking seems called for.

Income

Table 4B shows that whites pursuing agricultural degrees come from higher economic origins than agriculturally oriented blacks. Over 50 percent of the blacks in our study, regardless of career expectations, come from homes where the yearly income is under $10,000. And almost 3/4 of the blacks with education/research expectations come from families with incomes under $10,000.

The majority of whites, on the other hand, come from homes where the yearly income is over $20,000. Further, inter-situs correlation coefficients (Table 5B) for whites show that there is little, if any, relationship between situs choice and family income.

Father's Education

Overall, whites have fathers who are much better educated than their black counterparts. Over half of the white sample comes from homes where the father has at least some college education. For blacks, on the other hand, less than 20 percent have college educated fathers.

Tables 4C and 5C also show that father's educational status, like income, is unrelated to situs expectation for whites. For blacks, however, young men expecting to enter the research/education sector have less educated fathers than their peers with either agribusiness or production agriculture expectations. On the other hand, compared to the others, blacks expecting to find jobs in agribusiness come from homes with better educated fathers.

High School Related Agricultural Experiences

Table 4E shows that, while in high school blacks were more actively involved in both academic and extra-curricular agricultural endeavors than whites. Almost half of the white agricultural students in our sample reported they had taken no high school agriculture courses, nor had they participated in either FFA or in 4-H. A closer look at Tables 4E and 5E shows that white students planning to enter the agribusiness sector were the least likely to have had any previous agricultural training while students planning for jobs in production agriculture were the most likely to have participated in prior agricultural related education.

Like whites, agribusiness oriented black students were the least likely to have engaged in any previous agricultural related education. However, somewhat surprisingly, education/research oriented blacks reported the highest amount of previous agricultural education. Almost half of these students had taken agricultural courses in high school and had participated in both FFA and 4-H.

Agricultural Work Experiences

The marginal distributions of agricultural work experiences (Table 4F) are quite similar for blacks and whites. About 90 percent of each group reported working in some agricultural related job and over 3/4 noted farm related work experience.

Inter-situs differences (Table 5F) are apparent for both

races, however. For whites, young men planning to enter production agriculture were more likely to have worked on farms than their counterparts with career expectations in either agribusiness of education/research. White men aiming for jobs in the agribusiness sector were the least likely to have had prior agricultural work experience.

For blacks a disproportionate share of men with agricultural work experience are attracted to education/research careers. Like whites, however, black men oriented toward agribusiness careers reported the least prior agricultural experiences.

Summary and Discussion

Taken together, the findings reported in Tables 2-5 provide at least a preliminary understanding of the social and economic origins of young black and white men aiming for different types of agricultural careers. We have shown that the allocation of job roles within the agricultural sector is related to a young man's social background and experiences. Further, although we have no direct evidence, it appears that situs expectations are to some extent conditioned by the nature and type of agricultural programs offered in a given school. Our data show, for example, that blacks enrolled in agricultural programs at 1890 land grant universities are aiming predominantly for careers in agricultural research and education. Whites attending 1862 land grant schools, on the other hand, are more likely to pursue production agriculture and agribusiness careers.

In an effort to expand and broaden our inquiry into agricultural situs recruitment, we compared the effects of residence background, father's education, family income, and prior agricultural experiences in agriculture on the career plans of white and black men. Findings from Tables 4 and 5 show that our independent measures were more successful in explicating inter-situs recruitment patterns for blacks. For whites, agricultural situs plans were related only to residence background and prior agricultural work and educational experiences. Especially noteworthy, however, was the background profile of blacks aiming for careers in the educational/research sector. Compared to whites and to other blacks, black men oriented toward agricultural education/research jobs were disproportionately drawn from rural and low socioeconomic backgrounds. Further, these young men were considerably more likely to have participated in agricultural related work and educational activities while in high school.

The relative attractiveness of education/research occupations coupled with the unique background characteristics of these men suggests that we have identified a set of agricultural occupations of critical importance to the career aspirations of blacks in general, and lower status blacks in particular. To find reasons why blacks cluster in this situs we must look not only at the agricultural curriculums offered at 1890 institutions, but we must examine in a broad sense the opportunity structures that characterize each of our situses.

Looking first at employment opportunities in production agriculture, it is well known that most jobs in this situs,

other than relatively low status manual labor positions, require not only sophisticated technical and managerial skills, but (perhaps more importantly) the land and capital necessary to get started in farming. Since most of the blacks in our sample come from homes where these material resources are unavailable, they are effectively barred from pursuing most careers in production agriculture.

In the agribusiness sector, like the production agriculture situs, most of the career paths to middle and upper status positions have been closed to blacks. Other than a few selected occupations (e.g., veterinarian), the relatively small proportion of blacks aiming for agribusiness careers might be attributed to a lack of black role models in this situs and the concomitant failure of agribusiness firms to seek out talented agriculture-oriented blacks.

The agribusiness recruitment situation may be changing, however. The civil rights movement and the associated affirmitive action programs may be slowly eroding the barriers that once prevented admittance to and/or advancement in agribusiness jobs. Consequently, we might expect to see increasing numbers of blacks opting for careers in this sector in the future.

The avenue that historically has probably afforded easiest access to high status agricultural work roles for blacks has been in the education/research situs. Especially important to the career ambitions of agriculture-oriented blacks have been positions related to agricultural education. The teaching profession in general, has been a very attractive career option, often the only viable option, for upwardly mobile blacks (Lyson,

1978). Not surprisingly, the career expectations of the blacks in our study reflect longstanding realities and perceptions of the agricultural labor market.

Suggestions for Future Research

We believe that this paper has opened the door for more detailed and elaborate studies of the agricultural labor markets by sociologists. A number of future research needs come immediately to mind. First, we need to better articulate the processes by which and through which talent is sorted into specific agricultural situses. We touched on only a limited number of exploratory variables in our study and dealt with only a narrow range of respondents (i.e., college students.) Future inquiries should be broadened to include a wider set of independent variables and more diverse study populations. Toward this end, we must also begin to formulate a coherent conceptual framework related to the allocation and distribution of agricultural-related work roles in society.

Second, we need to gather data pertaining to agricultural career ladders. The inquiry here sheds light on only the initial rung of this ladder (i.e., entry level positions). We must, however, go beyond merely specifying factors related to agricultural recruitment and specify the nature of movement into, out of, and within the agricultural sector.

Finally, we need to compare the career ladders, reward and opportunity structures, and other structural characteristics of agricultural labor markets with labor market outside of agriculture. We must formulate a set of theoretically relevant and

analytically comparable "industry-specific" situses. The conceptual development of a situs based occupational infrastructure within all economic/industrial subsystems of society would help us to better specify, at a macro level, the nature of occupational recruitment and the dynamics of occupational mobility.

Footnotes

1. It is interesting to note that social psychologists and vocational educators (Super, 1957; Shartle, 1959) have conceptualized the occupational structure and labor market organization along multi-dimensional lines for some time. However, these researchers were less concerned with understanding societal stratification and mobility systems than with the general topics of vocational interest and occupational choice.

2. For an empirical analysis of the extent of overlap among agricultural-related occupations and non-agricultural industries, the reader is advised to see USDA/ERS Publication 570 (Employment in Agricultural and Agribusiness Occupations).

3. The creation of "study-specific" situses to fit a particular research problems or study population, of course, will never lead to the integration of the situs concept into a general theory of the social structure. These issues are addressed in greater detail in Villemez and Silver (1977).

4. Especially relevant is the research being done under the auspices of USDA/SEA Regional Research Project S-114. An extensive data set on the social backgrounds, career ambitions and value orientations of college agricultural students is currently being analyzed.

5. Land grant colleges and universities originated from the Morrill Act of 1862. Many attempts to establish a land grant college system were made prior to 1862. However, these attempts were consistently defeated by Southern legislators who thought a federal land grant to individual states was an infringement on states' rights. Consequently, only during the Civil War when Southern legislators were absent from Congress was such legislation able to pass. In 1890 a second Morrill Act was passed. This Act established a second land grant institution in each of the 16 Southern states to serve the needs of the states' black populations. Today, primarily black land grant schools still exist in the following 14 states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Texas, Tennessee, and Virginia.

Figure 1. Relative Prestige Rankings* of Selected Agricultural Occupations Within Agricultural Situses.

Occupational Prestige	Situs: Production Agriculture	Agribusiness	Agricultural Education/Research
High		Veterinarian (92.7)	
			Professor in Agriculture (82.1)
		Landscape Architect(79.8)	
			Extension Specialist
	Farm Manager(77.2)		
			County Agricult. Agent (74.4)
	Farmer	Feed Store Owner (69.0)	
			High School Vo-Ag Teacher (68.4)
		Dietician(65.6)	
		Farm Implement Salesman(63.8)	Laboratory Assistant/ Technician
Low	Tenent Farmer (47.2)		
	Sharecropper (43.1)		
		Packinghouse Worker	
	Migrant Worker (34.0)		

*Prestige Scores in parentheses were obtained from Cosby and Frank's (1978) study of agricultural students enrolled in fourteen universities in the Southern United States.

Table 1. Occupational Situs Expectations For Black Men Enrolled in 1890 Colleges of Agriculture and White Men Enrolled in 1862 Colleges of Agriculture.'

	Situs Expectation		
	Production Agriculture	Agribusiness	Agricultural Education/Research
Blacks (N=295)	14.9%	29.2%	55.9%
Whites (N=1067)	35.9	38.1	26.0

Table 2. Specific Job Expectation by Situs: Study Populations Compared.

	Situs Expectation					
	Production Agriculture	%	Agribusiness	%	Agricultural Education/ Research	%
Job Expectation (White Men)	General Farmer	45.2	Veterinarian	26.0	Forester	15.9
	Nursery/Greenhouse Operator	11.5	Landscape Architect	7.6	Agricultural Teacher	16.6
	Farm Manager	7.6	Wildlife Specialist	6.4	Biologist	8.7
	Forest Manager	6.8	Agricultural Services Manager	5.7	Extension Specialist	6.9
	Cattle Farmer	6.3	Forest/Park Ranger	5.2	Soil/Water Conservationist	5.8
	Dairy Farmer	3.1	Agricultural Business Owner/Manager	7.9	Agricultural Engineer	5.4
	Other	19.5	Landscape Contractor	4.9	County Agricultural Agent	5.4
		100.0	Golf Course Manager	4.9	Plant/Animal Research	4.7
			Park/Recreation Administrator	2.9	Farm Management Consultant	3.6
			Lumber industry Manager	2.7	Laboratory Assistant	6.9
			Agriculture Supply Salesman	2.2	Other	21.1
			Farm Loan Officer	2.2		100.0
			Other	21.4		
				100.0		

(continued)

Table 2. (Continued) Specific Job Expectation by Situs: Study Population Compared.

	Situs Expectation					
	Production Agriculture	%	Agribusiness	%	Agricultural Education/ Research	%
Job Expectation (Black Men)	General Farmer	59.1	Veterinarian	38.4	Agricultural Teacher	28.5
	Livestock Farmer	6.8	Landscape Architect	5.8	Soil-Water Conservationist	18.2
	Dairy Farmer	4.5	Animal Products Inspector	11.6	County Agricultural Agent	11.5
	Farm Manager	4.5	Grain Inspector	7.0	Extension Specialist	10.3
	State/National Forest Employee	4.5	Agricultural Services Manager	4.7	Soil Scientists	6.1
	Forest Manager	4.5	Agricultural Business Owner	3.5	Agricultural Economist	3.0
	Nursery/Greenhouse Operator	4.5	Forest/Park Ranger	3.5	Other	22.4
	Other	11.6	Other	25.5		100.0
		100.0		100.0		

Table 3. Specific Academic Major by Situs: Study Populations Compared.

	Situs Expectation					
	Production Agriculture	%	Agribusiness	%	Agricultural Education/ Research	%
Academic Major (White Men)	Animal Science	19.5	Agricultural Economics	10.3	Agronomy	11.6
	Agricultural Economics	10.3	Pre-Veternary Science	10.3	Vocational Agriculture	10.9
	Agronomy	9.5	Animal Science	9.9	Forestry	10.5
	Horticulture	7.9	Rural Sociology	7.6	Animal Sciences	8.7
	General Agriculture	6.6	Agronomy	6.4	Agricultural Engineering	6.2
	Biology	5.8	Botony	6.4	Forestry	5.8
	Other	40.4	Forestry	5.9	Other	46.3
		100.0	Other	43.2		100.0
				100.0		
Academic Major (Black Men)	Animal Science	21.4	Animal Sciences	29.1	Vocational Agriculture	34.5
	Vocational Agriculture	19.0	Pre-Veternary Science	19.8	Agronomy	13.3
	Agronomy	14.3	Vocational Agriculture	14.0	Agricultural Economics	9.7
	Agricultural Economics	9.5	Rural Sociology	7.0	General Agriculture	8.5
	General Agriculture	7.1	Agricultural Economics	5.8	Plant Science	7.9
	Forestry	7.1	Other	24.3	Animal Science	7.3
	Other	21.6		100.0	Agricultural Business	5.5
		100.0			Other	13.2
						100.0

Table 4. Situs expectations by selected social background factors: study populations compared

Background Factor	Situs Expectations: Whites Production Ag.	Agri-Business	Ag. Ed./ Research	(Marginal) (Total)	Blacks Production Ag.	Agri-Business	Ag. Ed./ Research	(Marginal) (Total)
A. Home Residence								
Farm	42.6%	19.0%	21.3%	(28.1%)	25.6%	11.6%	28.5%	(23.1%)
Open Country	7.8	8.4	10.5	(8.7)	4.6	10.6	20.0	(15.0)
Village	15.1	15.8	15.9	(15.6)	16.3	18.5	26.7	(22.8)
Small City	11.0	22.7	23.0	(18.6)	25.6	18.6	13.3	(16.7)
Medium City	15.1	21.3	17.0	(17.9)	11.6	15.1	7.9	(10.5)
Metro. Area	8.4	12.8	12.3	(11.1)	16.3	25.6	3.6	(11.9)
B. Family Income								
Under $5,000	1.8	1.9	1.6	(1.8)	22.5	17.9	37.1	(29.4)
$5,000-$9,999	9.5	5.4	7.2	(7.3)	30.0	35.9	37.1	(35.7)
$10,000-$14,999	13.4	19.9	23.1	(18.4)	17.5	19.2	13.9	(16.0)
$15,000-$19,999	16.9	15.0	15.5	(15.8)	7.5	10.3	6.6	(7.8)
$20,000-$24,999	21.1	25.3	21.5	(22.8)	2.5	9.0	3.3	(4.8)
$25,000-$49,999	27.5	26.2	26.3	(26.7)	10.0	7.7	2.0	(4.8)
Over $50,000	9.8	6.3	4.8	(7.2)	10.0	--	--	(1.5)
C. Father's Education Level								
Less than 8 yrs.	4.7	7.0	5.6	(5.7)	35.0	22.4	51.6	(41.0)
Some hi school	5.1	7.0	5.9	(6.2)	37.5	27.6	18.7	(23.3)
Hi school grad.	29.1	22.7	24.4	(25.4)	15.0	22.4	13.5	(16.2)
Vocational sch.	3.7	6.5	4.1	(4.9)	--	6.5	2.7	(3.3)
Some college	21.8	14.0	18.5	(17.9)	2.5	9.3	5.8	(6.3)
College grad.	27.1	22.9	23.3	(24.5)	2.5	3.9	4.5	(4.0)
Graduate work	8.5	19.9	18.2	(15.4)	12.5	7.9	3.2	(5.9)

Table 4. (Continued) Situs expectations by selected social background factors: study populations compared.

Background Factor	Situs Expectations: Whites — Production Ag.	Agri-Business	Ag. Ed./ Research	(Marginal) (Total)	Situs Expectations: Blacks — Production Ag.	Agri-Business	Ag. Ed/ Research	(Marginal) (Total)
D. Agricultural Participation								
Participated in 3 organ.	24.6%	10.3%	17.0%	(17.1%)	33.3%	17.2%	46.5%	(36.2%)
Participated in 2 organ.	14.0	13.1	20.1	(15.3)	14.9	24.1	35.1	(29.1)
Participated in 1 organ.	14.4	11.9	9.4	(12.1)	18.5	10.4	8.8	(10.6)
Participated in no organ.	47.0	64.7	53.5	(55.5)	33.3	48.3	9.6	(24.1)
E. Agricultural Work Experience								
Farm and other ag. work	23.4	14.9	15.1	(18.0)	11.1	15.2	19.1	(17.0)
Farm work only	62.9	50.1	58.3	(56.8)	74.1	45.4	68.4	(62.4)
Non-farm ag. work only	7.4	19.0	15.9	(14.1)	3.7	25.8	3.7	(10.1)
No ag. work	6.3	16.0	10.7	(11.1)	11.1	13.6	8.8	(10.5)

Table 5. Situs expectations by selected social background factors - Intercorrelations (Gamma): study populations compared

	Independent Variable	Control	Situs Correlations: Production Ag. (+) with Agribusiness (-)	Production Ag. (+) with Education/Research (-)	Agribusiness (+) with Education/Research (-)
A.	Home Residence (+ = more rural) (- = more urban)	White	.287	.241	-.051
		Black	.330	-.044	-.369
B.	Family Income (+ = high) (- = low)	White	.048	.108	.065
		Black	.039	.368	.381
C.	Father's Education (+ = high) (- = low)	White	-.079	-.089	-.006
		Black	-.224	.200	.384
D.	Agricultural Participation (+ = high) (- = low)	White	.326	.111	-.226
		Black	.244	-.400	-.624
E.	Agricultural Work Experience (+ = high) (- = low)	White	.379	.292	-.122
		Black	.258	-.194	-.367

Bibliography

Beck, E.M., Patrick M. Horan, and Charles M. Tobert II
1978 "Stratification in a dual economy: a sectoral model of earning determination." American Sociological Review 43 (5): 704-720.

Benoit-Smullyan, Emile
1944 "Status, status types, and status inter-relations." American Sociological Review 9 (April): 151-161.

Bibb, R., and William Form
1977 "The effects of industrial, occupational and sex stratification on wages in blue collar markets." Social Forces 55: 974-996.

Blau, Peter M., and Otis Dudley Duncan
1967 The American Occupational Structure. New York: Wiley.

Byrum, Harold M.
1966 Guidance in Agricultural Education. Danville, Illinois: The Interstate Printers and Publishers, Inc.

Cosby, Arthur G., and Lianne M. Frank
1978 "A prestige scale for agricultural occupations." Paper presented at the Annual Meetings of the Rural Sociology Section of the Southern Association of Agricultural Scientists, Houstan, Texas (February 5-8).

Davis, K., and W. E. Moore
1945 "Some principles of stratification." American Sociological Review 10: 242-249.

Doeringer, Peter B., and Michael J. Piore
1971 Internal Labor Markets and Manpower Analysis. Lexington, Mass.: Heath Lexington Books.

Dunkelberger, John E., and Jerri L. Hayes
1979 "Commitment of students to agriculture as an occupation." Paper presented at the Annual Meetings of the Rural Sociology Section of the Southern Association of Agricultural Scientists, New Orleans, Louisiana (February 4-7).

Gordon, David M.
1972 Theories of Poverty and Unemployment. Lexington, Mass: D.C. Heath.

Haller, Archibald O., and Alejandro Portes
1973 "Status attainment processes." Sociology of Education 46 (winter): 51-91.

Hatt, Paul K.
1950 "Occupations and Social Stratification." American Journal of Sociology 55 (May): 533-543.

Houser, Robert M., and David L. Featherman
1977 The Process of Stratification. New York: Academic Press.

Hoover, Norman K.
1969 Handbook of Agricultural Occupations (2nd ed.). Danville, Illinois: The Interstate Printers and Publishers, Inc.

Horan, Patrick M.
1978 "Is status attainment research atheoretical?" American Sociological Review 43 (August): 534-541.

Lyson, Thomas A.
1978 "Recruitment to teaching: career expectations of South Carolina young people." In Rural Sociology in the South 1978, Edward L. McLean (ed.), Proceedings of the 1978 Annual Meetings of the Southern Association of Agricultural Scientists.

1979a "Going to college: an emerging rung on the agricultural ladder." Rural Sociology (forthcoming).

1979b "Some plan to be farmers: career orientations of women in American colleges of agriculture." International Journal of Women's Studies 2 (4): 311-323.

Morris, Richard T., and Raymond J. Murphy
1959 "The situs dimension of occupational structure." American Sociological Review 24 (April): 231-239.

Ohlendorf, George W., Donna M. Rafferty, and John F. Goudeau
1979 "Aspirations to become a veterinarian: antecedents and correlates." Paper presented at the Annual Meetings of the Rural Sociology Section of the Southern Association of Agricultural Scientists, New Orleans, Louisiana (February 4-7).

Parsons, Talcott
1940 "An analytic approach to the theory of social stratification." American Journal of Sociology 45: 841-862.

Roe, Anne
1956 The Psychology of Occupations. New York: Wiley.

Shartle, Carroll L.
1959 Occupational Information: Its Development and Application (Third edition). Englewood Cliffs, New Jersey: Prentice Hall.

Super, Donald E.
1957 The Psychology of Careers. New York: Harper.

Taylor, Lee and J. Paul Leagans
1970 Workers in Agribusiness. Cornell University Agricultural Experiment Station Bulletin 1029, Ithaca, New York (March): 238 pp.

Treiman, Donald J., and Kermit Terrell
1975 "Sex and the process of status attainment: a comparison of working women and men." American Sociological Review 40 (April): 174-200.

United States Department of Agriculture
1974 Employment in Agricultural and Agribusiness Occupations. Economic Research Service Publication 570 (August).

United States Department of Labor
1977 Dictionary of Occupational Titles. Employment and Training Administration, 4th Edition.

Villemez, Wayne J., and Burton B. Silver
1977 "Occupational situs as horizontal social position: a reconsideration." Sociology and Social Research 61 (3): 320-336.

Wright, Erik Olin, and Luca Perrone
1977 "Marxist class categories and income inequality." American Sociological Review 42 (February): 32-55.